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The egg-based material may generally be processed to form the cooked egg-based product by heating the egg-based material to a temperature ranging from about 160° F. to about 212° F. for a heating period ranging from about one half hour to about one and one half hours. As a suitable example, the egg-based material may typically be processed to form the cooked egg-based product by heating the egg-based material to a temperature ranging from about 190° F. to about 200° F. for a heating period of about one hour. Persons skilled in the art will recognize that the cooking time and temperature are dependent on both the amount and the configuration of the egg-based material being cooked and will be able to modify the cooking time and/or cooking temperature accordingly.

Formation of the egg-based product with larger thicknesses will typically require a higher heated temperature and/or a longer cooking time. Persons skilled in the art will also recognize that configurations having a greater thickness will require longer cooking times and/or higher cooking temperature(s) to adequately coagulate (solidify) the natural liquid egg component(s) and transform the egg-based material into the cooked egg-based product and will be able to modify the cooking time and/or cooking temperature accordingly. Additionally, the egg-based material may be cooked under super-atmospheric pressure, and consequently at a higher temperature, to decrease the cooking time required to adequately coagulate (solidify) the natural liquid egg component(s) and transform the egg-based material into the cooked egg-based product.

After formation of the cooked egg-based product, the warm, cooked egg-based product may be cooled to a temperature ranging from about 35° F. to about 45° F. The cooked egg-based product may be cooled by any suitable technique that may employ cold or cool water, ice, chilled air, liquid nitrogen, carbon dioxide, or any of these in any combination. One skilled in the art will recognize that a waterproof barrier may be desirable when the warm, cooked egg-based product is cooled by immersion in water and/or ice to prevent free moisture from permeating into the cooked egg-based product. Such permeation of free moisture into the cooked egg-based product may adversely affect the organoleptic properties of the cooked egg-based product when reheating the cooked egg-based product from a frozen state. In addition to merely being cooled to refrigeration temperatures upon formation, the warm cooked egg-based product may permissibly be frozen immediately after removal of the warm, cooked egg-based product from the heating source, and then later thawed before further processing or use.

After being cooled, the cooked egg-based product may be removed from the water-impermeable cooking container and cut into any desired geometric configuration. Some non-exhaustive examples of desirable configurations are geometric configurations that are easily gripped by a person's hand and preferably mimic geometric configurations of hand-held foods already commercially available, such as, but not limited to, chicken nuggets, french toast sticks, and hash brown potato patties and wedges. In some embodiments, the cut forms of the cooked egg-based product have the geometric configuration of a nugget with a weight that ranges from about five grams to about forty grams and may, in other embodiments, range from about ten grams to about eighteen grams to better mimic commercially available hand-held foods, such as chicken nuggets.

As an alternative to cutting the cooked egg-based product into convenient hand-held configurations, the cooked egg-based product may also be cut into diced pieces, such as diced pieces with length, width, and height dimensions as small as about one fourth of an inch. The diced pieces of the cooked

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egg-based product may be combined with a fluid binder, such as a liquid medium consisting of eggs and a starch, to adhere the diced pieces together in the form of a patty or in the form of a spheroidal product similar in shape to a meatball.

As another option, the cooked egg-based product (or the cut pieces of the cooked egg-based product) may be batter-coated and/or breaded to form a coated egg-based product prior to being frozen or further processed. The batter-coating may, by way of non-exhaustive example, be based upon a blend of a dry batter mix and water with a composition ranging from about ten to about fifty weight percent batter mix and from about ninety to about fifty weight percent water, based upon the total weight of the batter coating. In some embodiments, the batter-coating is based upon a blend of about forty weight percent batter mix and about sixty weight percent water, based upon the total weight of the batter coating.

Optionally, the cooked egg-based product (or the cut pieces of the cooked egg-based product) may be pre-dusted in conventional fashion prior to application of the batter coating to the cooked egg-based product (or the cut pieces of the cooked egg-based product). The pre-dust medium is typically formulated to increase batter adhesion to the egg-based product upon multiple passages through the battering process and any subsequent breading process. As another alternative, the cooked egg-based product may be coated with the batter and breading after first passing the cooked egg-based product through a deep fat fryer at a temperature of about 340° F. for about two minutes to form a pre-fried egg-based composition and help ensure the batter adheres to the pre-fried egg-based composition.

After application of the batter coating to the cooked egg-based product (or the cut pieces of the cooked egg-based product), the battered egg-based product may optionally be passed through a breading machine. In the breading machine, the battered egg-based product may be coated with bread crumbs, such as American bread crumbs. Thereafter, the battered and breaded egg-based product (i.e. the coated egg-based product) may again be battered and coated with breading one or more additional times.

The coated egg-based product will typically be heated to ensure the breading adequately adheres to the batter present on the coated egg-based product. As some non-exhaustive examples, the coated egg-based product may be heated by deep fat frying to form the fried egg-based product, may be baked to form a baked egg-based product, or may be subjected to microwave energy in a microwave oven to form a microwaved egg-based product. After heating, the fried egg-based product, the baked egg-based product, and the microwaved egg-based product may have one or more additional coatings applied to better adhere the breading to the fried egg-based product, the baked egg-based product, and the microwaved egg-based product. Thereafter, the breaded forms of the fried egg-based product, the baked egg-based product, and the microwaved egg-based product may be cooled, packaged, and individually quick frozen. As yet another alternative, the coated egg-based product may be frozen without subsequent heating to allow final frying, baking, or microwaving of the coated egg-based product by the end user, such as the consumer.

The fried egg-based product, the baked egg-based product, the microwaved egg-based product, or, if not cooked after breading and battering, the coated egg-based product may be stored in a frozen state until shortly before consumption by the end user. Prior to being consumed, the fried egg-based product, the baked egg-based product, the microwaved egg-based product, or simply the coated egg-based product may be heated and thawed using any desired heating technique.